ABSTRACT OF THE DISCLOSURE

A tissue punch for creating a hole in the wall of a target blood vessel for receiving an anastomosis device includes a piercing element for penetrating the tissue and a cutting element for cutting a plug of tissue around the pierced hole. The tissue punch includes a trocar for inserting the piercing element. After punching is complete, the piercing element is removed from the trocar through a side wall of the trocar so that a medical device can be deployed through the trocar lumen. The tissue punch may also include a tissue trap for trapping the plug of tissue.